

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

**Claims 1-17 (canceled).**

**Claim 18 (new):** A printed circuit board unit with a cooling device comprising:

a printed circuit board;

a ventilation fan coupled to the printed circuit board for relative rotation to the printed circuit board, said ventilation fan having a rotation axis and a direction of said rotation axis intersecting the printed circuit board;

a housing wall standing from a surface of the printed circuit board at a periphery of the ventilation fan;

a ceiling wall connected to an upper end of the housing wall and extending along a datum plane parallel to the surface of the printed circuit board;

an inlet defined in the ceiling wall;

an outlet defined in the housing wall;

an electronic component mounted on the printed circuit board; and

an electrically conductive wiring pattern extending over the surface of the printed circuit board inside the housing wall and connected to the electronic component.

**Claim 19 (new):** An electronic apparatus comprising:

printed circuit board;

a ventilation fan coupled to the printed circuit board for relative rotation to the printed circuit board, said ventilation fan having a rotation axis and a direction of said rotation axis intersecting the printed circuit board;

a housing wall standing from a surface of the printed circuit board at a periphery of the ventilation fan;

an outlet defined in the housing wall;

an electronic component mounted on the printed circuit board;

an electrically conductive wiring pattern extending over the surface of the printed circuit board inside the housing wall and connected to the electronic component;

a radiation fin connected to the electrically conductive wiring pattern; and

an electronic component mounted on the printed circuit board inside the housing wall.

**Claim 20 (new):** An electronic apparatus comprising:

a printed circuit board;

a ventilation fan coupled to the printed circuit board for relative rotation to the printed circuit board, said ventilation fan having a rotation axis intersecting the printed circuit board;

a housing wall standing from a surface of the printed circuit board at a periphery of the ventilation fan;

an outlet defined in the housing wall;

a ceiling wall connected to an upper end of the housing wall and extending along a datum plane parallel to the surface of the printed circuit board;

a first inlet defined in the ceiling wall; and

a second inlet defined in the printed circuit board inside the housing wall.

**Claim 21 (new):** The electronic apparatus according to claim 20, further comprising:  
an electronic component mounted on the printed circuit board; and  
an electrically conductive wiring pattern extending over the surface of the printed circuit board inside the housing wall and connected to the electronic component.

**Claim 22 (new):** The electronic apparatus according to claim 21, further comprising a radiation fin connected to the electrically conductive wiring pattern.

**Claim 23 (new):** The electronic apparatus according to claim 22, further comprising an electronic component mounted on the printed circuit board inside the housing wall.

**Claim 24 (new):** An electronic apparatus comprising:

- a printed circuit board;
- a housing coupled to the printed circuit board;
- a rotary shaft supported for rotation by the housing, said rotary shaft having a rotation axis intersecting the printed circuit board;
- a rotary member mounted on the rotary shaft;
- blades fixed to the rotary member; and
- an inlet defined in the printed circuit board inside the housing.

**Claim 25 (new):** A printed circuit board unit with a cooling device, comprising:

- a printed circuit board;
- a ventilation fan coupled to the printed circuit board for relative rotation to the printed circuit board, said ventilation fan having a rotation axis and a direction of said rotation axis intersecting the printed circuit board;
- a housing wall standing from a surface of the printed circuit board at a periphery of the ventilation fan;
- an outlet defined in the housing wall;
- an electronic component mounted on the printed circuit board outside the housing wall; and
- an electrically conductive wiring pattern extending over the surface of the printed circuit board inside the housing wall and connected to the electronic component.

**Claim 26 (new):** The printed circuit board unit with the cooling device according to claim 25, further comprising a radiation fin connected to the electrically conductive wiring pattern.

**Claim 27 (new):** The printed circuit board unit with the cooling device according to claim 25, wherein the electronic component is a central processing unit.

**Claim 28 (new):** A printed circuit board unit with a cooling device, comprising:

- a printed circuit board;
- a ventilation fan coupled to the printed circuit board for relative rotation to the printed circuit board, said ventilation fan having a rotation axis and a direction of said rotation axis intersecting the printed circuit board;
- a housing wall standing from a surface of the printed circuit board at a periphery of the ventilation fan;
- an outlet defined in the housing wall;
- an electronic component mounted on the printed circuit board; and
- an electrically conductive wiring pattern extending over the surface of the printed circuit board inside the housing wall and connected to the electronic component so as to serve as a ground wire.

**Claim 29 (new):** The printed circuit board unit with the cooling device according to claim 28, wherein the electronic component is a central processing unit.

**Claim 30 (new):** An electronic apparatus comprising:

- a printed circuit board;
- a ventilation fan coupled to the printed circuit board for relative rotation to the printed circuit board, said ventilation fan having a rotation axis and a direction of said rotation axis intersecting the printed circuit board;
- a housing wall standing from a surface of the printed circuit board at a periphery of the ventilation fan;
- an outlet defined in the housing wall;
- an electronic component mounted on the printed circuit board outside the housing wall; and
- an electrically conductive wiring pattern extending over the surface of the printed circuit board inside the housing wall and connected to the electronic component.

**Claim 31 (new):** The electronic apparatus according to claim 30, further comprising a radiation fin connected to the electrically conductive wiring pattern.

**Claim 32 (new):** The electronic apparatus according to claim 30, wherein the electronic component is a central processing unit.

**Claim 33 (new):** An electronic apparatus comprising:

a printed circuit board;

a ventilation fan coupled to the printed circuit board for relative rotation to the printed circuit board, said ventilation fan having a rotation axis and a direction of said rotation axis intersecting the printed circuit board;

a housing wall standing from a surface of the printed circuit board at a periphery of the ventilation fan;

an outlet defined in the housing wall;

an electronic component mounted on the printed circuit board; and

an electrically conductive wiring pattern extending over the surface of the printed circuit board inside the housing wall and connected to the electronic component so as to serve as a ground wire.

**Claim 34 (new):** The electronic apparatus according to claim 33, wherein the electronic component is a central processing unit.

**Claim 35 (new):** An electronic apparatus comprising:

an enclosure;

a printed circuit board disposed within the enclosure;

U.S. Patent Application Serial No. 10/664,933  
**Preliminary Amendment**

a ventilation fan coupled to the printed circuit board for relative rotation to the printed circuit board, said ventilation fan having a rotation axis and a direction of said rotation axis intersecting the printed circuit board;

a housing wall standing from a surface of the printed circuit board at a periphery of the ventilation fan;

a ceiling wall connected to an upper end of the housing wall and extending along a datum plane parallel to the surface of the printed circuit board;

an inlet defined in the ceiling wall and opposed to an inner surface of the enclosure;

an outlet defined in the housing wall;

an electronic component mounted on the printed circuit board; and

an electrically conductive wiring pattern extending over the surface of the printed circuit board inside the housing wall and connected to the electronic component.

**Claim 36 (new):** The electronic apparatus according to Claim 35, wherein the inner surface of the enclosure is flat.